

Application No: 10/533,063
Amendment and Response dated June 19, 2009
Reply to Office Action of March 19, 2009
Docket No. P-7714 (102-680 PCT/US)
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AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application. Please amend the claims as follows:

1. (currently amended) A method to immobilise at least one type of carbohydrate molecule comprising the steps of:
 - i) providing a monomer source comprising one or more organic compounds which are capable of polymerization;
 - ii) creating a plasma of said monomer source;
 - iii) ~~coating~~ contacting a surface with said plasma to provide a plasma polymer coated surface; ~~and~~
 - iv) contacting said plasma polymer coated surface with at least one type of biologically active carbohydrate molecule; and
 - v) incubating said plasma polymer coated surface with said carbohydrate molecule, wherein whereby the carbohydrate molecule is in its native form passively adsorbed on the surface and thereby immobilised, such that the carbohydrate molecule retains its biological activity.
2. (cancelled)
3. (previously presented) A method as claimed in claim 1 wherein the carbohydrate is provided as a solution comprising at least one carbohydrate molecule.
4. (previously presented) A method as claimed in claim 1 wherein the monomer is a volatile alcohol.

5. (previously presented) A method as claimed in claim 1 wherein the monomer is a volatile amine.
6. (previously presented) A method as claimed in claim 1 wherein the monomer is a volatile hydrocarbon.
7. (previously presented) A method as claimed in claim 1 wherein the monomer is a volatile acid.
8. (previously presented) A method as claimed in claim 1 wherein the surface comprises a polymer comprising a nitrogen content of at least 2%.
9. (original) A method as claimed in claim 8 wherein the nitrogen content is 2-20%.
10. (previously presented) A method as claimed in claim 1 wherein the surface comprises a polymer comprising a nitrogen content greater than 20%.
11. (previously presented) A method as claimed in claim 1 wherein the monomer contains a hydroxyl, amino or carboxylic acid group.
12. (original) A method as claimed in claim 10 wherein the monomer is allylamine.
13. (previously presented) A method as claimed in claim 1 wherein the monomer has a vapour pressure of at least 6.6×10^{-2} mbar at ambient room temperature.

14. (currently amended) A method as claimed in claim 1 wherein the plasma polymer is deposited from a plasma of ~~W/FM~~ W/FM of $< 10^9$ J/Kg and ~~ideally $< 10^8$ J/Kg and more ideally $< 10^7$ J/Kg.~~

15. (previously presented) A method as claimed in claim 1 wherein the polymer comprises an amine co-polymer.

16. (currently amended) A method as claimed in claim 15 wherein the co-polymer is prepared by the plasma polymerization of an organic amine with a saturated (~~alkane~~) or an unsaturated (~~alkene, diene or alkyne~~) hydrocarbon of up to 20 carbons.

17. (previously presented) A method as claimed in claim 1 wherein the carbohydrate is a homopolysaccharide.

18. (currently amended) A method as claimed in ~~claims~~ claim 1 wherein the carbohydrate is a heteropolysaccharide.

19. (original) A method as claimed in claim 18 wherein the heteropolysaccharide is a glycosaminoglycan.

20. (original) A method as claimed in claim 19 wherein the glycosaminoglycan is selected from the group consisting of: hyaluronan; dermatan sulfate; chondroitin sulphate; heparin; heparan sulphate; or keratan sulphate.

21. (previously presented) A method as claimed in claim 1 wherein the surface is part of a biosensor.

22. (previously presented) A method as claimed in claim 1 wherein the surface is part of a therapeutic vehicle.

23. (currently amended) A method as claimed in claim 1 wherein the surface is part of a device wherein said device is used in the collection of biological samples from an animal; ~~preferably a human.~~

24. (previously presented) A method as claimed in claim 1 wherein the surface is part of an affinity purification matrix.

25. (currently amended) A method as claimed in ~~claims~~ claim 1 wherein the surface is part of a microarray.

26. – 32. (cancelled)

33. (new) A method as claimed in claim 1 wherein the plasma polymer is deposited from a plasma of W/FM of $< 10^8$ J/Kg.

34. (new) A method as claimed in claim 1 wherein the plasma polymer is deposited from a plasma of W/FM of $< 10^7$ J/Kg.

35. (new) A method as claimed in claim 16 wherein the saturated hydrocarbon is an alkane.

36. (new) A method as claimed in claim 16 wherein the unsaturated hydrocarbon is selected from a group consisting of an alkene, a diene, and an alkyne.

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37. (new) A method as claimed in claim 23 wherein the animal is a human.